engineered into a retroviral vector backbone for efficient, stable, integration into cells. In particular, the AS3 antisense gene was cloned into the Clontech pRevTRE™ retroviral vector under the control of a tetracycline sensitive promoter. The promoter has seven repeats of the bacterial *tetO* operator sequence upstream of the minimal CMV promoter which can be bound by the tetracycline transactivator (tTA). The tTA is a fusion protein between the bacterial tetracycline repressor and the V16 herpes virus transactivator. The tetracycline transactivator is sensitive for tetracycline such that, in the presence of tetracycline, the transactivator cannot bind the tetracycline promoter so the transgene is "off" and conversely, in the absence of tetracycline, the gene is "on" (*i.e.*, the Tet-Off™ system; see, *e.g.*, Clontech pRevTRE™ manual for further details).

At the end of the application, please replace the Sequence Listing (pages 1-23) with the Substitute Sequence Listing (pages 1-25) provided herewith.

In the Claims:

Please amend claims 5, 6, 47-49, and 51 as follows:

5. (Amended) An isolated nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecule comprising an AS3 (Androgen Shutoff Gene 3) nucleotide sequence which has at least 70% identity to the nucleotide sequence of SEQ ID NO:1 or 3, or a complement thereof;

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(b) a nucleic acid molecule comprising a fragment of at least 250 nucleotides of a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1 or 3, or a complement thereof;

(c) a nucleic acid molecule which encodes an AS3 (Androgen Shutoff Gene 3) polypeptide comprising an amino acid sequence having at least about 70% identity to the amino acid sequence of SEQ ID NO:2; and

(d) a nucleic acid molecule which encodes a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, wherein the fragment comprises at least 15 contiguous amino acid residues of the amino acid sequence of SEQ ID NO:2.

6. (Amended) An isolated nucleic acid molecule which hybridizes to the nucleic acid molecule of any one of claims 1, 2, 3, 4, or 5 under stringent conditions of 6x SSC at about 45°C followed by washing.

47. (Amended) A kit for diagnosing a mammal for the presence of a disease involving altered cell proliferation or an increased likelihood of developing a disease involving altered cell proliferation, said kit comprising a material for measuring AS3 (Androgen Shutoff Gene 3) RNA.

48. (Amended) A method of obtaining a AS3 (Androgen Shutoff Gene 3) polypeptide, said method comprising:

(a) providing a cell with DNA encoding a AS3 (Androgen Shutoff Gene 3) polypeptide, said DNA being positioned for expression in said cell;

(b) culturing said cell under conditions for expressing said DNA; and

(c) isolating said AS3 polypeptide whereby an AS3 (Androgen Shutoff Gene 3) polypeptide is obtained.

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49. (Amended) A method of isolating a AS3 (Androgen Shutoff Gene 3) gene or portion thereof having sequence identity to human AS3 (Androgen Shutoff Gene 3), said method comprising amplifying by polymerase chain reaction said AS3 (Androgen Shutoff Gene 3) gene or portion thereof using oligonucleotide primers wherein said primers

(a) are each greater than 15 nucleotides in length;

(b) each have regions of complementarity to opposite DNA strands in a region of the nucleotide sequence of SEQ ID NO: 1; and

(c) optionally contain sequences capable of producing restriction endonuclease cut sites in the amplified product; and isolating said AS3 gene or portion thereof whereby an AS3 (Androgen Shutoff Gene 3) or portion thereof is isolated.

51. (Amended) A kit for determining if a subject is at increased risk of developing prostate cancer comprising:

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(a) at least one reagent that specifically detects an AS3 (Androgen Shutoff Gene 3) molecule, wherein said reagent is a nucleic acid that can selectively bind to a nucleic acid encoding AS3 (Androgen Shutoff Gene 3); and